

WHAT IS CLAIMED IS:

1. A rubber composition for golf ball comprising a base rubber, a co-crosslinking agent, an organic peroxide, a filler and a processing aid, wherein

5 the base rubber comprises a polybutadiene (a) containing a cis-1,4 bond of not less than 80% and synthesized using lanthanide-containing catalyst,

10 the organic peroxide comprises an organic peroxide having 10 hours half-life period temperature of 80 to 100°C, and

 the processing aid is fatty acid ester, fatty acid salt or the mixture thereof.

2. The rubber composition for golf ball according to Claim 1, wherein the polybutadiene (a) has a Mooney
15 viscosity of not less than 50 to less than 65 ML₁₊₄(100°C), a ratio (Mw/Mn) of weight average molecular weight (Mw) to number average molecular weight (Mn) of 2.0 to 6.0.

3. The rubber composition for golf ball according to Claim 1, wherein the organic peroxide is 1,1-bis (t-
20 butylperoxy)-3,3,5-trimethylcyclohexane.

4. The rubber composition for golf ball according to Claim 1, wherein the processing aid is contained in an amount of 0.1 to 10 parts by weight, based on 100 parts by weight of the base rubber.

25 5. A solid golf ball comprising at least one

layer of a vulcanized molded article of the rubber composition for golf ball according to Claim 1, wherein the vulcanization of the vulcanized molded article is conducted by press molding at 100 to 130°C.